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OTS: 60-11,396

JPRS: 2367

12 March 1960

## SOVIET ABSTRACTS BIOLOGY

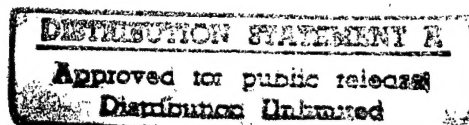
SECTION O - PLANT DISEASES

Book No. 1, 1959

Abstracts 1956 thru 2021

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205 EAST 42nd STREET, SUITE 300  
NEW YORK 17, N. Y.

19980109 062

JPRS: 2367

CSO : R-2450-N/o

ABSTRACTS FROM REFERATIVNYY ZHURNAL - BIOLOGIYA, No. 1, 1959

This report consists of complete translations of those entries in the Soviet Biology Abstracts Journal No. 1, 1959, which were originally published in the Sino-Soviet bloc and in Yugoslavia.

The Soviet subject classification system used in the original Russian language abstracts has been followed in this publication.

USSR/Plant Diseases - General Problems.

0

Abs Jour : Ref Zhur Biol., No 1, 1959, 1956  
Author : Lebedeva, L.N.  
Inst : State Mountain Forest Preservation  
Title : Microflora and Diseases of Wood Underbrush Vegetation  
of the Mountain-Forest Preservation  
Orig Pub : Tr. Gorno-lesn. gos. zapovedn., 1958, vyp. 1, 80-93  
Abstract : Data on 237 species of fungi gathered in different  
periods of vegetation - spring, summer, fall - are  
divided according to regions corresponding to the botani-  
cal distribution of vegetation in the national forest.  
Of the number of designated fungi, 29 species were iso-  
lated as general ones encountered in all regions at dif-  
ferent altitudes in different seasons. A list of these  
species is presented.

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GDR/Plant Diseases - General Problems.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1965  
Author : Sandvoss, H.  
Inst : -  
Title : Remnants of Poisons Applied in Spraying of Fruits,  
Vegetables, and Other Produce  
Orig Pub : Dtsch. Gartenbau, 1956, 3, No 10, 262-265  
Abstract : Data of the Leipzig laboratory (GDR) are presented on  
the microchemical and biological (on Musca domestica)  
determinations of the amount of poison content in fruits,  
vegetables, and grasses after the spraying of plants.  
Critical toxic doses are established and the change in  
toxicity of different fungicides and insecticides while  
under the influence of light, air, and moisture. --  
A.D. Kuz'mina

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USSR/Plant Diseases. Diseases of Forest Species.

0

Abs Jour : Ref Zhur Biol., No 1, 1959, 1974

Author : Ibraginov, I.A.

Inst : Bashkir Agricultural Institute

Title : Problem of Withering in Poplar Plantings in Bashkir ASSR

Orig Pub : Tr. Bashkirsk, s.-kh. in-ta, 1957, No 2, 265-278

Abstract : Withering of the poplar stands in Bashkir ASSR was noted in 1951-1952, during which period there was a gradual decrease (from 1940) in atmospheric precipitation. Analysis of the structure of 16 year-old plants of balsam poplars showed that trees of smaller diameter generally dried out in the crowded part of the tree stand, and the waste according to the number of trunks consisted of 37.3%; plants of Chinese poplars on segregated plots

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USSR/Plant Diseases - Diseases of Forest Species.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1974

dried out completely. In the drying out of the plants a malignant disease was observed which contributed to the withering of the bark and cambium on isolated parts, and sometimes it extended all around the trunk. On the withered bark there were observed 2 types of bacteria and 16 species of fungi, among which predominated *Cytospora chrysosperma*. Artificial infection (inoculation) showed that this same fungus was capable of producing the malignant disease in healthy woods of the poplar, provided the inoculations were carried out on parts of the trunk with injured bark. The least resistant against the malignant disease was the Berlin poplar, average was the Chinese poplar, the most resistant was the balsam poplar. The reason for the drying out and the malignant disease of the poplars was a physiological weakening of the trees.  
-- D.I. Deryabin

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RUMANIA/Plant Diseases - Diseases of Cultivated Plants.

0

Abs Jour : Ref Zhur Biol., No 1, 1959, 1978

Author : Rafaila, C.

Inst : Scientific Research Institute of Agriculture.

Title : Decontamination and Increased Resistance Toward Diseases of Summer Wheat by Means of Complex Treatment of Seeds.

Orig Pub : An. Inst. cercetari agron., 1957, 24, No 5, 539-548

Abstract : Experiments were conducted at the Moscow "Order of Lenin" Agricultural Academy im. K.A. Timiryazev with summer varieties of Moscow wheat. Mercuric preparations tested as fungicides were: preparation 5, lindane (as an insecticide), and microelements (B, Mn, Zn). Seeds were treated with solutions and suspensions with subsequent self-heating for 24 - 36 hours followed by planting, or else the seeds were subjected to dry treatment with fungicides,

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1978

and the insecticides and microelements were introduced into the soil in the form of granules with superphosphate. Results of the 3-year laboratory and field experiments revealed the possibility of combining the treatment of seeds by insecto-fungicide preparations and microelements by means of a wet method as well as by introduction of granules of a complex consistency. There was obtained a notable reduction in the risk of smut and brown rust, a lessening in attack by wireworms and fruit flies, and a 34% increase in the harvest. -- G.A. Dykova

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POLAND/Plant Diseases - Diseases of Cultivated Plants.

0

Abs Jour : Ref Zhur Biol., No 1, 1959, 1979

Author : Wnekowski, Stanislaw

Inst : "

Title : Dwarf Blight of Wheat

Orig Pub : Postepy nauk roln., 1957, 4, No 3, 67-74

Abstract : A review is given on literary data about *Tilletia brevifaciens*, which is differentiated from *T. tritici* morphologically and biologically. Chlamydospores of *T. brevifaciens* are germinated with sufficient light and aeration for their further viability in the soil. Infection of the wheat occurs in the fall and early fall at temperatures of 2-8 degrees. This explains the affliction of fall wheat and the absence of attack on summer wheat. In addition to wheat *T. brevifaciens* can infect *Triticum spelta*, *Secale cereale*, *Avena clatior*, *Agropyrum subsecundum*, and *A. intermedium*. Besides the quarantine

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POLAND/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1979

measures in the eradication of dwarf blight there are recommended: dusting of the seeded areas before the appearance of young growth with 50 - 100 kg/hectare of pentachloronitrobenzol; pre-sowing treatment of seeds with triazon, a later date for the sowing of winter wheats; sowing of wheats after leguminous plants and fertilization by manure not advised; substitution of cultivation of winter wheats by summer wheats, and five-year gaps between cultivation of winter wheat on afflicted area. -- B.I. Vergovskiy

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POLAND/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1980

Author : Pielka, J.

Inst : -

Title : Septoria Infections in Wheat

Orig Pub : Hodowla rosl., aklimat. i nasienn., 1957, 1, No 5-6,  
745-756

Abstract : In 1956 in the Krokow environment *Leptosphaeria nodorum* (conidial stage of *Septoria nodorum*) was observed in winter wheat. The ears, in particular, were strongly affected, and the weight of the ear kernels decreased 46%.

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1983

Author : Guletskaya, Ye.G.

Inst : Belorussian University

Title : Some Data Concerning the Parasitic Fungus of Grains

Orig Pub : Uch. zap. Belorussk. un-t., 1957, vyp. 33, 95-98

Abstract : Investigations explaining the development cycle of *Erysiphe graminis* were conducted from May to September of 1952 - 1953 in Minskaya and Molodechnenskaya Oblasts. It was established that the annula cycle of development of *E. graminis* depended on meteorological conditions. Thus, in a cool summer after the vegetative period the fungus did not progress to a complete cycle of development, spores did not mature in the pouches in the fall, and the fungus hibernated in the form of fertile bodies.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1983

In years with favorable climatic conditions a complete cycle of development transpired with formation and complete maturity of the ascomycetous stage, and hibernation of the fungus occurred in the form of mycelia. -- G.A. D'yakova

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1984

Author : Kachalova, Z.P.

Inst : Moscow Agricultural Academy im. K.A. Timiryazev

Title : Influence of Bacterization of Seeds on Increased Resistance of Wheat and Oats to Diseases.

Orig Pub : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, vyp. 31, 103-109

Abstract : Complex bacterization of wheat and oat seeds with moist heat, vernalization, and fungicides proved to be an effective measure in decreasing the attack on wheat by smut and other diseases and in increasing the harvest. Of bacterial fertilizers the most potent were phosphorus bacteria and nitrogen bacteria.

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CHINA/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1986  
Author : Chang Chih-Yun; Kuo I-Fen  
Inst : -  
Title : Differentiation of Agents of Diplodia in Corn  
Orig Pub : Chih-ping chihpshih, 1957, 1, No 3, 31-35  
Abstract : Symptoms of the disease and characteristics of the agents are described and illustrated!

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1987  
Author : Kalashnikov, K.Ya.  
Inst : -  
Title : Combined Preparations of TMED for Caustic Treatment of Seeds.  
Orig Pub : Kukuruza, 1958, No 2, 52  
Abstract : 50% preparations of TMED (tetramethylthiuram disulphide) in a mixture with 12% gamma-isomer of benzine hexachloride proved to be the best caustic treatment for corn seeds in the northern non-black earth zone. This preparation, as well as mercuran, is applicable for caustic treatment against diseases and for re-sowing treatment against harmful blights. In addition, it contributes toward an increased harvest. -- L.D. Stonov

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1991  
Author : Dunin, M.S., Kalashnikov, K.Ya.  
Inst : -  
Title : System of Measures for the Control of Smut Diseases in Grain Plants.  
Orig Pub : Zashchita rast. ot vredit. i bolezney, 1958, No 3, 26-29  
Abstract : No abstract.

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POLAND/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1994  
Author : Ksiazek, Danuta  
Inst : -  
Title : Data of World Literature on Viral Diseases of Lupine  
Orig Pub : Postepy nauk roln., 1957, 4, No 3, 75-88  
Abstract : No abstract.

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1995  
Author : Milovidova, L.S.  
Inst : Tomsk University  
Title : Problem of Diseases of Clover in Tomskaya Oblast'  
Orig Pub : Tr. Tomskogo un-ta, 1957, 141, 103-106

Abstract : Damping-off of clover in the early spring period is due to root decay caused by fungi of the Fusarium genus. Infection takes place in the spring with the sowing of contaminated seeds: during the course of the vegetative period it proceeds through the soil. Clover of 1 year-old plants, and 2 and 3 year-old plants in particular, was subject to infection of the roots by the fungus. -- G.D. Uspenskaya

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POLAND/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 1998  
Author : Kciazek, Danuta  
Inst : -  
Title : Data of World Literature on Viral Diseases of the Onion and Related Plants.  
Orig Pub : Postepu nauk roln., 1957, 4, No 2, 87-96  
Abstract : A survey. The bibliography lists 27 titles.

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RUMANIA/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 2000  
Author : Comes, I., Ene, Il.  
Inst : Scientific Institute of Agriculture, Craiova  
Title : Influence of Some Fungicides on Seeds of Vegetable Plants  
Orig Pub : Anuarul lucrur. stiint. Inst. agron. Craiova, Bucuresti,  
1957, 339-348

Abstract : Formation,  $\text{CuSO}_4$  solutions, and mercuric chloride (in various concentrations) were used in the treatment of seeds of the pepper, cucumber, onion, tomato, and cabbage against phytopathogenic microorganisms transmitted by the seeds. High concentrations of mercuric chloride depressed germination of the treated seeds, and lower concentrations were not effective against the microorganisms;  $\text{CuSO}_4$  had no effect on the germination of seeds of the cucumber and cabbage.

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 2002  
Author : Tymchenko, L.F.  
Inst : Moscow Agricultural Academy im. K.A. Timiryazev  
Title : Influence of Micronutrients on Susceptibility of Sunflowers to Disease  
Orig Pub : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, vyp. 31, 144-151  
Abstract : During 1955 (at Nemchinovka Station in Moskovskaya Oblast') and 1956 (at the training farm Cuchkhoz in Tambovskaya Oblast') a study was made of the influence of B and Mo separately and in combination with Cu on the susceptibility of the sunflower to diseases and on its harvest. Boron (effect and after-effect), applied as top-dressing accelerated the blossoming, decreased the number

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 2002

of empty seeds, increased the seed yield 10 - 27%, and contributed toward increased resistance of the sunflower to rust, white and gray rot. Additional nutrition to the roots with B had only a negligible effect on the harvest and did not lessen the attack by diseases. Top-dressing with B in combination with Cu decreased susceptibility to diseases by 28% and increased the yield of seed by 20%. Mo in side and top dressing did not have any effect on increasing resistance of the sunflower to diseases nor on augmenting the harvest. -- G.A. D'yakova

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 2003

Author : Dudarev, Ye.I., Popova, T.T.

Inst : All-Union Scientific Research Institute of Flax

Title : Basic Summary of Work on Plant Protection and Microbiology

Orig Pub : Byul. nauchno-tekhn. inform. Vses. n.-i. in-ta l'na, 1957, No 4, 26-29

Abstract : The paper deals with the status of the problem of the infectability and protection of flax in the USSR and on the work of the All-Union Scientific Research Institute of Flax.

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YUGOSLAVIA/Plant Diseases - Diseases of Cultivated Plants.

0

Abs Jour : Ref Zhur Biol., No 1, 1959, 2015  
Author : Pivar, A., Gojko  
Inst : -  
Title : Commonly Encountered Diseases and Pests of Gardens and  
Vineyards of Yugoslavia and Their Control  
Orig Pub : Bibliogr. Jugosl., 1957, 8, No 2, 69  
Abstract : No abstract.

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USSR/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 2013  
Author : Paterilo, G.A.  
Inst : -  
Title : Control of Peach Leaf Curl  
Orig Pub : Sadovostvo, vinogradarstvo i vinodeliye Moldavii, 1958,  
No 2, 59-60  
Abstract : To control Exoascus deformans and aphids the spraying  
of peach trees is recommended in the early spring using  
a combined mixture (Bordeaux mixture +5 kg of undiluted  
carbolineum 3 kg of 12% lindane) After blossoming 1  
- 2 additional sprayings were applied using 0.5% solution  
of Bordeaux mixture supplemented with 0.3% anabasine sul-  
phate. In the absence of aphids the spraying was perfor-  
med without anabasine sulphate.

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CHINA/Plant Diseases - Diseases of Cultivated Plants.

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Abs Jour : Ref Zhur Biol., No 1, 1959, 2021

Author : Chao Jung-Yu

Inst : -

Title : Blister Blight in Tea Caused by Exobasidium Vesans

Orig Pub : Ch'a-yeh, 1958, No 1, 15-16

Abstract : No abstract.

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